

**Range Extension for the European Skipper,  
*Thymelicus lineola*, in the Northeast (Lepidoptera: Hesperiiidae)**

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**Abstract:** The European skipper has greatly expanded its range on the Allegheny Plateau in central New York, east to Chenango County. The first record from the Pocono Plateau in Pennsylvania is reported. Populations on the Piedmont in Bucks County, Pa. and Mercer County, New Jersey reached outbreak proportions in 1970. The skipper's range is expected to become continuous across the northeastern United States.

Burns (1966) reported the current status of the European Skipper, *Thymelicus lineola* (Ochsenheimer) in North America. At that time it was disjunctly distributed: around the Great Lakes and on the Piedmont from Connecticut to Maryland and in British Columbia. The intervening Appalachian and Allegheny Plateau provinces have now been colonized, and the distribution of *T. lineola* is rapidly approaching continuity across the Northeast (fig. 1). The range has also expanded in Pennsylvania and New Jersey, and population outbreaks similar to those in southern Ontario (Arthur, 1962; Pengelly, 1961) have been found there. These new records are grouped by states below.

NEW YORK. Burns (1966) reports only the Niagara Frontier localities given by Clench (1957). The European Skipper has been present in the Erie-Cattaraugus County area for several years (J. G. Franclemont, pers. comm.). In 1967 two specimens were received at Cornell from Fillmore, Allegany Co. On 28 June 1968 one specimen was taken along the Lehigh Valley Railroad tracks at Ithaca, Tompkins Co. and on 2 and 7 July 1968 several more were taken or seen in a hayfield at Ellis Hollow, 4 miles east of Ithaca. On 13 July 1968 one was taken at Montezuma, Seneca Co., and on 16 July one in the Town of Alabama, Genesee Co. No collecting was done in 1969.

In 1970 *T. lineola* was general and locally abundant in central New York. A systematic survey of hayfields in five counties was made on 24 June. Collections were made at East Richford, Tioga Co. (density at least 50/acre); De Ruyter and 3.7 mi W. Georgetown, Madison Co.; East Homer and 3.2 mi.

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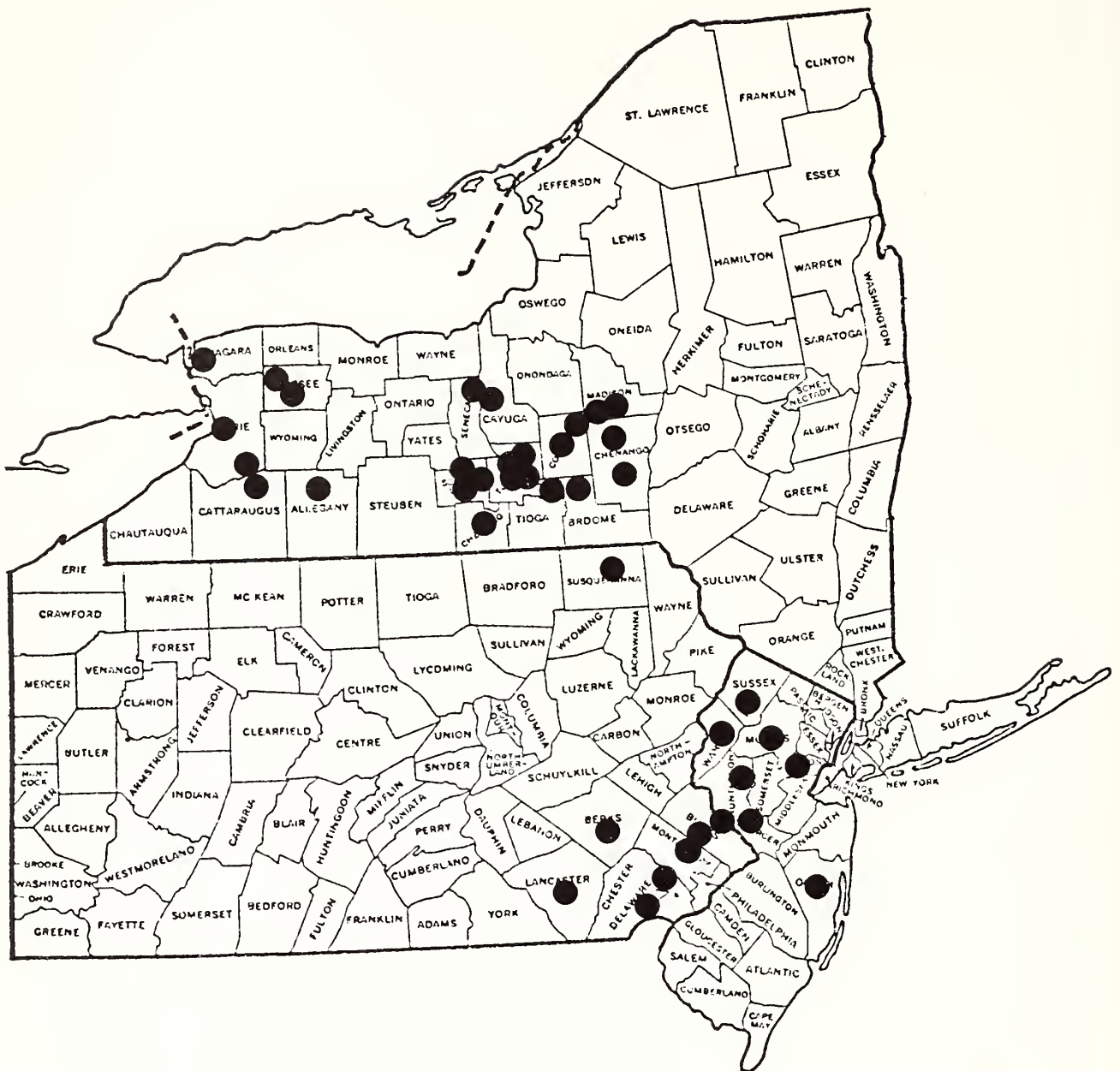


FIG. 1. Distribution of the European Skipper, *Thymelicus lineola*, in New York, New Jersey, and Pennsylvania.

S. De Ruyter, Cortland Co.; Triangle, Broome Co.; and  $\frac{1}{2}$  mi. S. Norwich, Chenango Co. (at east 50/acre). On 25 June further collections were made in several sites near Aurora, Cayuga Co. In Schuylker Co. collections were made at Mecklenburg (28 June), Texas Hollow (1 July), and the Blueberry Patch Recreation Area, vic. Logan (1 July) (density greater than 100/acre). Other 1970 collections were at Harris Hill, Chemung Co. (2 July) and the Tonawanda Indian Reservation, Genesee Co. (10 June). In Tompkins Co. the European Skipper was widespread (Cayuga Inlet Valley, Ithaca City Dump and downtown, Cornell University campus, Ludlowville, Ellis Hollow, Mount Pleasant, Turkey Hill, South Lansing, West Danby, Connecticut Hill), 9 June–10 July. Most of these sites were collected thoroughly in 1968, and no trace of *T. lineola*

was seen then. This includes the Blueberry Patch site. No sign of the skipper was found in Onondaga, Oneida, or Lewis Cos. on 7 July, 1970.

PENNSYLVANIA. The first Piedmont record was in Lancaster Co., 1953 (Ehle, 1958), but no significant natural expansion seems to have occurred from this site although an artificial colony was started from it in Berks County. The skipper probably re-invaded Pennsylvania from New Jersey about 1966. Schweitzer (1968) found it at Chalfont, Bucks Co. and in 1969 (Schweitzer, in litt.) at the Waterloo Mills Field Research Station, Devon, Chester Co. and Longwood Gardens, also Chester Co. I collected these sites for several years through 1966 without seeing it. Boscoe and Curtis (1970) found it at North Wales, Montgomery Co. On 13 June 1970 I found *lineola* the commonest butterfly at New Hope, Bucks Co. and elsewhere in Solebury Township, with local densities of 500–1000/acre in hayfields. It was not present in southwest Philadelphia on waste ground on 11 June.

On 14 June 1970 it was the commonest butterfly at Harford, Susquehanna Co., in a hayfield along Route 81. This is the first record from the Pocono Plateau.

NEW JERSEY. *T. lineola* has been recorded from Hunterdon, Union, Sussex, Morris, and Ocean Cos. (Burns, 1966) and Essex Co. (May, 1968) so it was hardly surprising to find it at Hopewell, Mercer Co., on 12 June 1970. Its numbers were, however, surprising. It flew by hundreds of thousands, far outnumbering all other butterflies combined, crowding every flower and covering roadside puddles. Dead *lineola* lined the roads, and specimens were seen in every flower garden and shop window. The white form was not observed.

Three *lineola* were seen (one taken) in a vacant lot 3.5 mi. N. Buttzville, Warren Co., 14 June.

Specimens from these collections have been deposited in Cornell University.

#### DISCUSSION

The European Skipper has not yet been reported from the Catskills or southeastern New York, but must be present in Orange and Rockland Counties via expansion from the south, and may be widespread in at least the western Catskills. The source of the exploding populations in central New York is difficult to interpret. *T. lineola* has been in western New York for many years but expanded its range very slowly. It appeared in Tompkins Co. before Schuyler, so it probably did not spread directly eastward across the state. Although it was found at Montezuma in 1968 it is still uncommon and spotty around the north end of Cayuga Lake. It is possible that the colonization occurred at least in part from the aggressive New Jersey population, perhaps via the Pennsylvania Turnpike and Interstate 81. The Harford, Pa. record supports this interpretation. Whatever the source, there is reason to suspect that winter survival of the eggs may have been abetted by the heavy snow pack which in

1969-70 covered central New York nearly the entire winter; this external agency may have permitted the population to reach an adult density of outbreak proportions and to insure the establishment of the species throughout the area. If the western New York, central New York, and New Jersey ranges are not yet confluent, they can be expected to become so within a few years.

#### Literature Cited

- ARTHUR, A. P. 1962. A skipper, *Thymelicus lineola* (Ochs.) (Lepidoptera: Hesperidae) and its parasites in Ontario. *Canad. Entomol.*, **94**: 1082-1089.
- BOSCOE, W. F. AND C. CURTIS. 1970. Annual Summary: Pennsylvania. *Lepidop. News*, 15 April: 16.
- BURNS, J. M. 1966. Expanding distribution and evolutionary potential of *Thymelicus lineola*, an introduced skipper, with special reference to its appearance in British Columbia. *Canad. Entomol.*, **98**: 859-866.
- CLENCH, H. K. 1956. Notes on the occurrence of *Thymelicus lineola* in North America: a summary. *Lepidop. News*, **10**: 151-152.
- EHLE, G. 1958. *Adopaea lineola* (Hesperidae) in Pennsylvania, a new state record. *Lepidop. News*, **12**: 15-16.
- MAY, C. 1968. Annual Summary: New Jersey. *Lepidop. News*, **15**: 19.
- PENGELLY, D. H. 1961. *Thymelicus lineola* (Ochs.), a pest of hay and pasture grasses in southern Ontario. *Proc. of the Entomol. Soc. of Ontario*, **91**: 189-197.
- SCHWEITZER, D. 1968. Annual Summary: Pennsylvania. *Lepidop. News*, 15 April: 19.